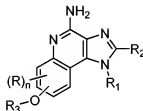


## AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, which includes marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

1-3. (Canceled)

4. (Currently amended) A compound of the formula (II):



II

wherein:

R<sub>3</sub> is selected from the group consisting of

-Z-Y-R<sub>4</sub>,

-Z-Y-X-Y-R<sub>4</sub>,

-Z-R<sub>5</sub>,

-Z-Het,

-Z-Het'-R<sub>4</sub>, and

-Z-Het'-Y-R<sub>4</sub>;

wherein R<sub>3</sub> comprises a nitrogen atom;

Z is selected from the group consisting of alkylene, alkenylene, and alkynylene, wherein alkylene, alkenylene, and alkynylene can be optionally interrupted with one or more -O- groups; R is selected from the group consisting of alkyl, alkoxy, hydroxy, halogen, and trifluoromethyl;

n is 0 or 1;

~~R<sub>1</sub> is selected from the group consisting of an alkyl group substituted with a sulfonamide, amide, urea, amine, or N-containing heterocycle;~~

~~-R<sub>47</sub>~~

~~-X-R<sub>47</sub>~~

~~-X-Y-R<sub>47</sub>~~

~~-X-Y-X-Y-R<sub>47</sub> and~~

~~-X-R<sub>57</sub>~~

R<sub>2</sub> is selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, and alkoxyalkyl;

~~-R<sub>47</sub>~~

~~-X-R<sub>47</sub>~~

~~-X-Y-R<sub>47</sub> and~~

~~-X-R<sub>57</sub>~~

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of

-S(O)<sub>0-2</sub>-,

-S(O)<sub>2</sub>-N(R<sub>8</sub>)-,

-C(R<sub>6</sub>)-,

-C(R<sub>6</sub>)-O-,

-O-C(R<sub>6</sub>)-,

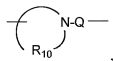
-O-C(O)-O-,

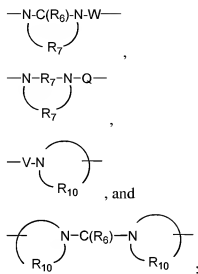
-N(R<sub>8</sub>)-Q-,

-C(R<sub>6</sub>)-N(R<sub>8</sub>)-,

-O-C(R<sub>6</sub>)-N(R<sub>8</sub>)-,

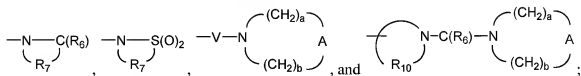
-C(R<sub>6</sub>)-N(OR<sub>9</sub>)-,





R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

$R_5$  is selected from the group consisting of



R<sub>6</sub> is selected from the group consisting of =O and =S;

R<sub>7</sub> is C<sub>2-7</sub> alkylene;

R<sub>8</sub> is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

$R_{10}$  is  $C_{3-8}$  alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)<sub>0.2</sub>-, and -N(R<sub>4</sub>)-;

Het is heterocyclyl which can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, hydroxyalkyl, mercapto, cyano, aryloxy, arylalkyleneoxy, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, hydroxyalkyleneoxyalkylenyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and oxo; Het' is heterocyclylene which can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, hydroxyalkyl, mercapto, cyano, aryloxy, arylalkyleneoxy, heteroaryloxy, heteroarylalkyleneoxy, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and oxo;

Q is selected from the group consisting of a bond, -C(R<sub>6</sub>)-, -C(R<sub>6</sub>)-C(R<sub>6</sub>)-, -S(O)<sub>2</sub>-, -C(R<sub>6</sub>)-N(R<sub>8</sub>)-W-, -S(O)<sub>2</sub>-N(R<sub>8</sub>)-, -C(R<sub>6</sub>)-O-, and -C(R<sub>6</sub>)-N(OR<sub>9</sub>)-;

V is selected from the group consisting of -C(R<sub>6</sub>)-, -O-C(R<sub>6</sub>)-, -N(R<sub>8</sub>)-C(R<sub>6</sub>)-, and -S(O)<sub>2</sub>-;

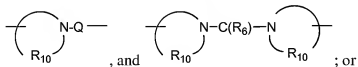
W is selected from the group consisting of a bond, -C(O)-, and -S(O)<sub>2</sub>-;

and a and b are independently integers from 1 to 6 with the proviso that a+b ≤ 7;

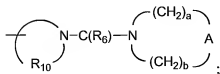
with the proviso that Z can also be a bond when:

$R_3$  is -Z-Het, -Z-Het'-R<sub>4</sub>, or -Z-Het'-Y-R<sub>4</sub>; or

$R_3$  is -Z-Y-R<sub>4</sub> or -Z-Y-X-Y-R<sub>4</sub>, and Y is selected from -S(O)<sub>0.2</sub>-, -S(O)<sub>2</sub>-N(R<sub>8</sub>)-, -C(R<sub>6</sub>)-, -C(R<sub>6</sub>)-O-, -C(R<sub>6</sub>)-N(R<sub>8</sub>)-,



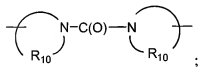
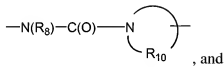
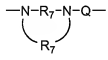
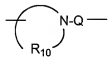
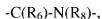
$R_3$  is -Z-R<sub>5</sub> and  $R_5$  is



or a pharmaceutically acceptable salt thereof.

5. (Previously presented) The compound or salt of claim 4 wherein  $R_3$  is  $-Z-T-R_4$  or  $-Z-Y-X-Y-R_4$ .

6. (Previously presented) The compound or salt of claim 5 wherein Y is selected from the group consisting of



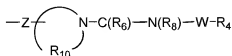
wherein Q is selected from the group consisting of a bond,  $-C(O)-$ ,  $-C(O)-O-$ ,  $-S(O)_2-$ ,  $-C(R_6)-N(R_8)-W-$ , and  $-S(O)_2-N(R_8)-$ ; W is selected from the group consisting of a bond,  $-C(O)-$ , and  $-S(O)_2-$ ;  $R_6$  is selected from the group consisting of  $=O$  or  $=S$ ;  $R_8$  is selected from the group consisting of hydrogen,  $C_{1-4}$  alkyl, and alkoxyalkylenyl; and  $R_{10}$  is selected from the group





28-45. (Canceled)

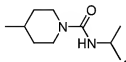
46. (Previously presented) The compound or salt of claim 4 wherein  $R_3$  is



47. (Original) The compound or salt of claim 46 wherein Z is a bond.

48. (Previously presented) The compound or salt of claim 45 wherein  $R_6$  is =O or =S,  $R_8$  is hydrogen or  $C_{1-4}$  alkyl,  $R_{10}$  is  $C_{4-6}$  alkylene, W is a bond, -C(O)-, or -S(O)<sub>2</sub>-, and  $R_4$  is selected from the group consisting of alkyl, alkenyl, aryl, arylalkylenyl, aryloxyalkylenyl, and heteroaryl, wherein the alkyl, alkenyl, aryl, arylalkylenyl, aryloxyalkylenyl, and heteroaryl groups can be unsubstituted or substituted by one or more substituents selected from the group consisting of alkyl, aryl, halogen, alkoxy, cyano, arylalkyleneoxy, nitro, dialkylamino, aryloxy, heterocyclyl, trifluoromethyl, trifluoroethoxy, and in the case of alkyl, oxo.

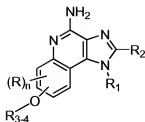
49. (Previously presented) The compound or salt of claim 48 wherein  $R_3$  is



50-54. (Canceled)

55. (Currently amended) A compound of the formula (VI):





VI

wherein:

$R_{3-4}$  is selected from the group consisting of

$-Z_a-C(R_6)-R_4$ ,

$-Z_a-C(R_6)-O-R_4$ ,

$-Z_a-C(R_6)-N(R_8)-R_4$ , and

$-Z_a-C(R_6)-N \begin{matrix} \text{---} (CH_2)_a \text{---} \\ \text{---} (CH_2)_b \text{---} \end{matrix} A'$ ;

wherein  $R_{3-4}$  comprises a nitrogen atom;

$Z_a$  is selected from the group consisting of a bond, alkylene, alkenylene, and alkynylene, wherein alkylene, alkenylene, and alkynylene can be optionally interrupted with one or more -O- groups;

$R$  is selected from the group consisting of alkyl, alkoxy, hydroxy, halogen, and trifluoromethyl;

$n$  is 0 or 1;

$R_1$  is selected from the group consisting of an alkyl group substituted with a sulfonamide, amide, urea, amine, or N-containing heterocycle;

$-R_{47}$

$-X-R_{47}$

$-X-Y-R_{47}$

$-X-Y-X-Y-R_{47}$ , and

$-X-R_{57}$

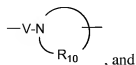
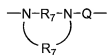
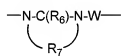
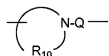
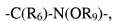
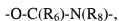
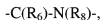
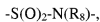
$R_2$  is selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, and alkoxyalkyl;

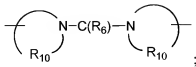
$-R_{47}$



X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

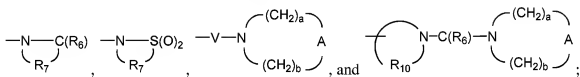
Y is selected from the group consisting of





R<sub>4</sub> is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroaryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted, or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, diarylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R<sub>5</sub> is selected from the group consisting of



R<sub>6</sub> is selected from the group consisting of =O and =S;

R<sub>7</sub> is C<sub>2-7</sub> alkylene;

R<sub>8</sub> is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R<sub>9</sub> is selected from the group consisting of hydrogen and alkyl;

R<sub>10</sub> is C<sub>3-8</sub> alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)<sub>0-2</sub>-, and -N(R<sub>4</sub>)-;

A' is selected from the group consisting of -O-, -C(O)-, -S(O)<sub>0-2</sub>-, -N(R<sub>4</sub>)-, and -CH<sub>2</sub>-;

Q is selected from the group consisting of a bond, -C(R<sub>6</sub>)-, -C(R<sub>6</sub>)-C(R<sub>6</sub>)-, -S(O)<sub>2</sub>-, -C(R<sub>6</sub>)-N(R<sub>8</sub>)-W-, -S(O)<sub>2</sub>-N(R<sub>8</sub>)-, -C(R<sub>6</sub>)-O-, and -C(R<sub>6</sub>)-N(OR<sub>9</sub>)-;

V is selected from the group consisting of -C(R<sub>6</sub>)-, -O-C(R<sub>6</sub>)-, -N(R<sub>8</sub>)-C(R<sub>6</sub>)-, and -S(O)<sub>2</sub>-;

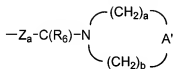
W is selected from the group consisting of a bond,  $-\text{C}(\text{O})-$ , and  $-\text{S}(\text{O})_2-$ ; and  
 a and b are independently integers from 1 to 6 with the proviso that  $a + b \leq 7$ ;  
 or a pharmaceutically acceptable salt thereof.

56. (Original) The compound or salt of claim 55 wherein  $\text{R}_{3-4}$  is  $-\text{Z}_a-\text{C}(\text{R}_6)-\text{R}_4$ .

57. (Previously presented) The compound or salt of claim 56 wherein  $\text{R}_6$  is  $=\text{O}$  or  $=\text{S}$ , and  $\text{R}_4$  is alkyl, aryl, or heterocyclyl.

58-61. (Canceled)

62. (Original) The compound of salt of claim 55 wherein  $\text{R}_{3,4}$  is



63. (Previously presented) The compound of salt of claim 62 wherein  $\text{R}_6$  is  $=\text{O}$  or  $=\text{S}$ , a and b are each independently 1 to 3, and  $\text{A}'$  is selected from the group consisting of  $-\text{CH}_2-$ ,  $-\text{S}(\text{O})_2-$ , and  $-\text{O}-$ .

64. (Previously presented) The compound or salt of claim 63 wherein  $\text{Z}_a$  is methylene,  $\text{R}_6$  is  $=\text{O}$ , a is 1 or 2, b is 2, and  $\text{A}'$  is  $-\text{CH}_2-$ .

65. (Previously presented) The compound or salt of claim 63 wherein  $\text{Z}_a$  is methylene,  $\text{R}_6$  is  $=\text{O}$ , a and b are each 2, and  $\text{A}'$  is  $-\text{CH}_2-$ .

66. (Original) The compound or salt of claim 55 wherein  $\text{Z}_a$  is a bond or alkylene.

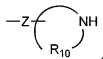
67-74. (Canceled)

75. (Previously presented) The compound or salt of claim 4 wherein:

$R_3$  is selected from the group consisting of



with the proviso that Z can also be a bond when  $R_3$  is



76-77. (Canceled)

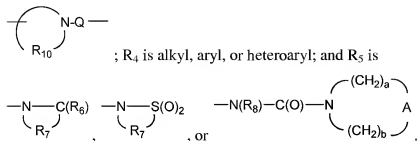
78. (Previously presented) The compound or salt of claim 4 wherein n is 0.

79. (Previously presented) The compound or salt of claim 4 wherein Het or Het' is selected from the group consisting of tetrahydropyranyl, tetrahydrofuranyl, 1,3-dioxolanyl, pyrrolidinyl, piperidinyl, morpholinyl, thiomorpholinyl, thiazolidinyl, aziridinyl, azepanyl, diazepanyl, dihydroisoquinolin-(1H)-yl, octahydroisoquinolin-(1H)-yl, dihydroquinolin-(2H)-yl, octahydroquinolin-(2H)-yl, dihydro-1H-imidazolyl, and piperazinyl.

80. (Canceled)

81. (Previously presented) The compound or salt of claim 4 wherein  $R_1$  is selected from the group consisting of alkyl, arylalkylenyl, aryloxyalkylenyl, hydroxyalkyl, dihydroxyalkyl, alkylsulfonylalkylenyl, -X-Y- $R_4$ , -X- $R_5$ , and heterocyclalkylenyl, wherein the heterocycl of the heterocyclalkylenyl group is optionally substituted by one or more alkyl groups; wherein X is alkylene; Y is

$-\text{N}(\text{R}_8)-\text{C}(\text{O})-$ ,  $-\text{N}(\text{R}_8)-\text{S}(\text{O})_2-$ ,  $-\text{N}(\text{R}_8)-\text{C}(\text{O})-\text{N}(\text{R}_8)-$ , or



82. (Currently amended) The compound or salt of claim 81 wherein  $\text{R}_1$  is selected from the group consisting of ~~2-hydroxy-2-methylpropyl, 2-methylpropyl, propyl, ethyl, methyl, 2,3-dihydroxypropyl, 2-phenoxyethyl, 4-[(methylsulfonyl)amino]butyl, 2-methyl-2-[(methylsulfonyl)amino]propyl, 2-(acetylamino)-2-methylpropyl, 2-[[[(isopropylamino)carbonyl]amino]-2-methylpropyl, 4-[[[(isopropylamino)carbonyl]amino]butyl, 4-(1,1)-dioxidoisothiazolidin-2-yl]butyl, and tetrahydro-2H-pyran-4-ylmethyl, and (2,2-dimethyl-1,3-dioxolan-4-yl)methyl.~~

83. (Currently amended) The compound or salt of claim 4 wherein  $\text{R}_2$  is selected from the group consisting of ~~hydrogen~~, alkyl, alkoxyalkylenyl, and hydroxyalkylenyl.

84. (Currently amended) The compound or salt of claim 83 wherein  $\text{R}_2$  is selected from the group consisting of ~~hydrogen~~, methyl, ethyl, propyl, butyl, ethoxymethyl, methoxymethyl, 2-methoxyethyl, hydroxymethyl, and 2-hydroxyethyl.

85. (Previously presented) The compound or salt of claim 4 wherein Z is alkylene.

86. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 4 in combination with a pharmaceutically acceptable carrier.

87. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 4 to the animal.

88. (Canceled)

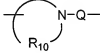
89. (Withdrawn) A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 4 to the animal.



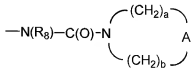
90. (Withdrawn) A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 4 to the animal.

91. (Canceled)

92. (Canceled)

94. (Previously presented) The compound or salt of claim 55 wherein  $R_1$  is selected from the group consisting of alkyl, arylalkylenyl, aryloxyalkylenyl, hydroxyalkyl, dihydroxyalkyl, alkylsulfonylalkylenyl,  $-X-Y-R_4$ ,  $-X-R_5$ , and heterocyclalkylenyl, wherein the heterocycl of the heterocyclalkylenyl group is optionally substituted by one or more alkyl groups; wherein X is

alkylene; Y is  $-N(R_8)-C(O)-$ ,  $-N(R_8)-S(O)_2-$ ,  $-N(R_8)-C(O)-N(R_8)-$ , or ;  $R_4$  is alkyl,

aryl, or heteroaryl; and  $R_5$  is , , or .

95. (Currently amended) The compound or salt of claim 55 wherein  $R_2$  is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and hydroxyalkylenyl.

96. (Previously presented) A pharmaceutical composition comprising a therapeutically

effective amount of a compound or salt of claim 12 in combination with a pharmaceutically acceptable carrier.

97. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 23 in combination with a pharmaceutically acceptable carrier.

98. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 26 in combination with a pharmaceutically acceptable carrier.

99. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 46 in combination with a pharmaceutically acceptable carrier.

100. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 55 in combination with a pharmaceutically acceptable carrier.

101. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 56 in combination with a pharmaceutically acceptable carrier.

102. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 62 in combination with a pharmaceutically acceptable carrier.

103. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 75 in combination with a pharmaceutically



acceptable carrier.

104. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 12 to the animal.

105. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 23 to the animal.

106. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 26 to the animal.

107. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 46 to the animal.

108. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 55 to the animal.

109. (Withdrawn) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 62 to the animal.

110. (Withdrawn) A method, of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 55 to the animal.

111. (Withdrawn) A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 55 to the animal.

112. (New) The compound of claim 4, wherein  $R_1$  is an alkyl group substituted with alkylsulfonamide, acetamide, alkyl urea, alkylamine, or dioxidoisothiazilidin-2-yl.

113. (New) The compound of claim 4, wherein  $R_1$  is alkyl substituted with sulfonamide.
114. (New) The compound of claim 113, wherein the sulfonamide is alkylsulfonamide.
115. (New) The compound of claim 114, wherein the sulfonamide is methylsulfonamide.
116. (New) A compound of claim 55, wherein  $R_1$  is an alkyl group substituted with alkylsulfonamide, acetamide, alkyl urea, alkylamine, or dioxidoisothiazilidin-2-yl.
117. (New) The compound of claim 55, wherein  $R_1$  is alkyl substituted with sulfonamide.
118. (New) The compound of claim 116, wherein the sulfonamide is alkylsulfonamide.
119. (New) The compound of claim 117, wherein the sulfonamide is methylsulfonamide.